A Newsletter
About Prevention,
Preparedness,
and Response

Spill SCENE

WASHINGTON STATE DEPARTMENT OF ECOLOGY

2004 Annual Report
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Message from the Program Manager

I was recently reflecting on the accomplishments of the Spills Program and happened to read the first Spill Scene article I wrote three years ago when starting my job as the Spills Program Manager. In that issue, I noted how impressed I was by the high level of expertise and dedication shown by program staff. The appreciation I felt then has only grown with time. I am immensely proud of the team I lead.

This past year has been challenging for the Program, and this is what prompted my reflections. It is my belief that if we are unwilling to look back at where we have been, we will fail to maintain momentum for progress in spill prevention, preparedness and response. Capturing "lessons learned" and acting on them is a key part of my leadership expectations and a core element of the "learning culture" my management team and I have established in the Spills Program.

I am pleased with the broad progress we continue to make in all areas of our program. We often say that prevention is our number-one priority. This is true, yet I should not overlook the fact that the safety of our people, who put themselves in harm's way everyday, is truly our number-one priority. This year, we were fortunate to once again continue our good safety record.

One of the priorities I set for the program when I started in the fall of 2001, was the development and implementation of DRILLTRAC. This training and competency program helps us manage spills through the Incident Command System (ICS). My goal for DRILLTRAC is to build relationships across the program and capabilities for spill response that meet or exceed any standard we set for industry. I also established an Incident Management Assist Team (IMAT) and each member of my team must demonstrate competency in one or more ICS positions. In September, we held a very successful internal drill in Chelan, Washington.

On October 14, the Dalco Passage oil spill was discovered near Vashon Island. Delays in

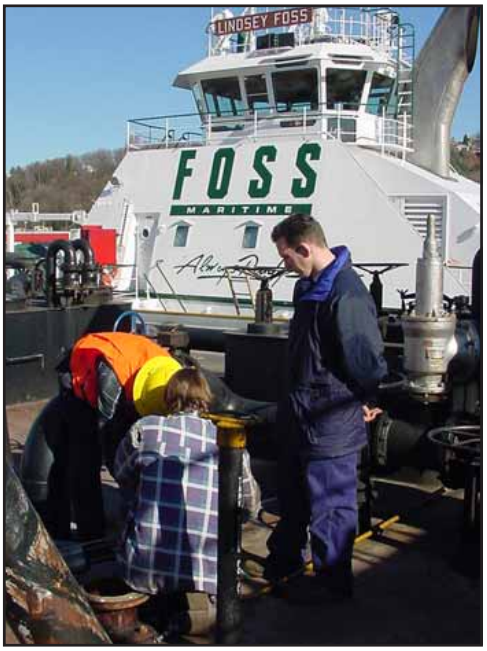
WDOE Publication 05-08-002

assessing the spill occurred and critical lessons were learned from the experience. It is understandable that post-spill coverage focused on the delays and not on the response. But all of that aside, the response organization that came together was strong and effective. The investments in training, testing, and maintaining response capability paid off.

Restoration Project: Spartina removal on Indian Island.

In November, the Oil Spill Early Action Task Force was established to look at the first 12 hours of the Dalco Passage response and make recommendations to the Governor and Northwest Area Committee. If fully funded by the 2005 legislature, the Task Force recommendations will help us in our work to prevent, prepare for, and respond to spills.

The Early Action Task Force and the Spills Program also recognized the need to strengthen our mechanisms for citizen participation in the planning processes. The Legislature, through SB 5432, seeks to address this need by establishing a citizen's advisory council. We are committed to finding better ways to engage interest groups and the public. So looking ahead for 2005, what do these challenges mean?



Inspecting alarm on Foss 248-P2 barge.

- We will rapidly and aggressively respond to spills and continue emphasizing the importance of prevention and preparedness where funding and jurisdiction allow.
- We will continue investigating oil spills in depth to identify systemic issues in the oil transportation, use, transfer, and storage systems that contribute to spills, and use voluntary actions and rule development processes to prevent them.
- We will utilize our expertise to assist federal agencies in cracking down on those that would deliberately discharge oil.
- We will take advantage of Gov. Gregiore's emphasis on performance measures.
- We will use this process to link our strategic goals with program accountability and improve our performance and external communication.

The Spills Program team is moving ahead confidently and assertively in delivering innovative spill prevention, 24-7 oil and hazmat spill response, and spill preparedness services statewide.

Dale Jensen
Program Manager

Fast water booming on the Spokane River.

2004 Incidents

Point Wells spill (12/30/03)

On December 30, 2003, approximately 4700 gallons of a heavy fuel oil spilled from the tank barge FOSS 248-P2 while it was loading bunker fuel at the Chevron Point Wells oil storage facility north of Seattle. A unified command made up of a responsible party Incident Commander from Foss Maritime, a federal on-scene coordinator (OSC) from the U.S. Coast Guard (USCG), a state OSC from the Washington Department of Ecology, a tribal OSC from the Suquamish Tribe and a local OSC from the Kitsap County Department of Emergency Management formed to manage the spill. A large on-water response force was mobilized but the oil quickly impacted an important environmentally sensitive marsh and beaches owned by both the Suquamish Tribe and the State of Washington. Commercial and recreational shellfish beds, beach sediments, a pristine marsh, and high use public beaches were all affected by the spill. A major four-month cleanup effort occurred on the beaches and marsh to remove the oil. Shellfish and sediment sampling and monitoring plans were developed jointly by agency and tribal workgroups. The Suquamish Tribe was placed in the lead for conducting beach surveys under a long-term monitoring plan approved by the unified command

Oil on deck of the Foss 248-P2 barge.

A joint Ecology-USCG investigation into the circumstances of the spill from the tank barge began with preliminary interviews, photographs of the spill scene, and collection of transfer-related documents. In depth interviews with various witnesses and parties were conducted. Follow-up eventually focused on the operability, and operation of, the barge's tank overfill alarm system. The factors contributing to the slow deployment of containment boom to minimize the impacts from the spill, despite clear, calm weather conditions were also identified. Both the USCG and Ecology developed recommendations for prevention of similar spills to Foss Maritime and Chevron-Texaco.

Currently, all oil that can be removed has been removed and sediment contamination is within state cleanup standards for contaminated sites. In April 2004, the Department of Health tested clams and mussels from the inter-tidal zone and determined that the tissues were safe for consumption. (These shellfish live well below the low tide line and were least likely to be affected by oil.) Beach access and shellfish restrictions were removed and vegetation is growing back in the marsh.

The 2004 legislature directed Ecology to conduct a study of oil transfer operations that occur on water. Based on those findings, Ecology will develop some additional regulations to help reduce the risk of oil spills during oil transfer operations. If legislation is needed, Ecology will make recommendations to the 2006 legislature.

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Dalco Passage Oil Spill (10/14/04)

Since no party initially stepped forward to accept responsibility for the Dalco Passage spill near Vashon and Maury islands, identifying the source became an immediate priority in October 2004. Oil samples were taken from the spill site and other potential sources. Inspectors also reviewed documents aboard a number of ships that were in the vicinity of Tacoma around the time of the spill as part of a joint Ecology-USCG investigative effort. Under direction of USCG investigators, sampling efforts stretched to Alaska to locate ships that had departed Tacoma prior to discovery of the Dalco spill. Samples of oil products delivered from, or carried to local oil handling facilities were also obtained for testing by Ecology's Manchester Environmental laboratory and the USCG Marine Safety Laboratory in Connecticut. Both labs returned results indicating the spilled oil was Alaska North Slope Crude Oil from the tank ship Polar Texas, which had transited the area of the Dalco spill that evening. A joint announcement to that effect was made by then Governor Gary Locke and the USCG Rear Admiral Jeffrey Garrett on December 23, 2004. The state and USCG are continuing their investigations and are preparing to recover the costs of cleanup from the responsible party.

Dalco Passage oil spill (10/14/04)

McNeil Island Legacy Spill (8/17/04)

McNeil Island Corrections Center staff reported an intermittent sheen of petroleum oil coming from the center's main stormwater outfall near the ferry dock. Releases tended to coincide with heavy rainfall. After much research involving numerous techniques, the source of the oil was traced back to a heavy fuel line long ago abandoned when the corrections center was a federal facility. Records from that time were difficult to find, and those that existed were not accurate. The legacy oil was located within the center's high-security exercise yard, complicating the process of repair and research. All oil has been removed from the old line and the contamination was flushed from the stormwater system and captured by vacuum truck to prevent any future releases.

U.S. Oil and Refining (USOR) Jet Fuel Release to Groundwater (9/8/04)

Corrosion in an internal pipeline in the refinery process units at U.S. Oil and Refining in Tacoma created a hole below grade where the line passed beneath a service road. The line in this area was not protected by sleeving, coating or other corrosion-prevention techniques. Jet fuel leaked for an unknown period of time until it could be seen pooling on the surface. Ground water elevations in the area vary from surface level to 8 feet below, and it was quickly evident that ground water was impacted by the release. USOR initially estimated the amount released at less than 500 gallons. Extraction and cleanup of the jet fuel (and any other oil present) continues. The total recovery as of March 7, 2005, has been 13,267 gallons.

Ground water is regarded as "property" of the citizens of Washington State, as is surface water. A release of this type requires immediate reporting to the National Response Center and to the Washington Division of Emergency Management.

Study of Tug Escorts in Puget Sound

The 2003 Washington State Legislature directed Ecology to complete "an evaluation of tug escort requirements for laden tankers to determine if the current escort system requirements under RCW 88.16.190 should be modified to recognize safety enhancements of the new double hull tankers deployed with redundant systems."

Washington State's tug escort requirements were signed into law in 1975 and require that laden oil tankers have a tug escort while transiting the waters of Puget Sound east of Dungeness Spit. The tugs provide a backup steering and propulsion system in the event of a tanker system failure. While these standards are one of the most important spill prevention measures in the state, they have not been significantly updated to reflect changes in industry practices and environmental values.

In the 30 years since the requirements were adopted, many aspects of the escort system have been improved:

- New, state-of-the-art highly capable tractor tugs have been brought on-line to escort tankers;
- Many existing escort tugs have been extensively refitted with important upgrades;
- All new oil tankers are required to have double hulls, and existing single-hulled tankers are being phased out;
- A few double-hulled tankers are being built for the Trans Alaskan Pipeline System (TAPS) trade that exceed national and international requirements. These vessels have many redundant systems including twin engines, segregated engine rooms, dual steering mechanisms and other important safety improvements;
- The more stringent *federal* tug escort requirements for Puget Sound do not apply to double-hulled tankers, and will no longer be in effect once the single-hull tanker phase-out is complete;
- The less stringent *state* tug escort requirements will continue to apply to single-hulled and double-hulled tankers transiting Puget Sound waters east of Dungeness Spit; and
- The escort procedures used by tugs, tankers, and Puget Sound Pilots have evolved to enhance safety.

These improvements reduce the probability of major spills from tank ships. However, since on-water recovery operations during major oil spills usually only remove 10% to 20% of the oil, oil spill prevention remains one of Ecology's top environmental priorities.

Since the inception of Earth Day 35 years ago, environmental awareness has grown. Greater value is placed on our natural resources, including our oceans and the many endangered species that barely exist today.

As a result of this increase in awareness and concern, the citizens of Washington have shown a great deal of interest in the protection of the environment and the economic consequences of major spills.

In early 2004, Ecology established a stakeholder advisory committee to provide advice on the study. Criteria were established to ensure that any recommendations to the legislature and governor would maintain or improve the current level of protection provided by escorts of conventional double-hulled tankers.

A competitive bidding process was completed and a firm was retained to complete the study with the full consensus of the interview panel consisting of representatives from People for Puget Sound, the Puget Sound Steamship Operators Association, and the Western States Petroleum Association. In July 2004, a study contract was awarded to Glosten and Associates, Herbert Engineering, Dr. Martha Grabowski of Rennselear Polytechnic Institute, and Dr. Dagmar Etkin of Environmental Research Consulting.

The study has a number of important findings. The reader is encouraged to review the report and related information on Ecology's web site at: http://www.ecy.wa.gov/programs/spills/spills.html (look under hot topics/ tug escort study).

Ecology's plan of action for 2005 is to:

- Consult individually with key stakeholders.
- Reconvene the steering committee to discuss the study results and how to proceed on the issue.
- Submit a report to the 2006 legislature.

Ecology is committed to ensuring that tanker tug escorts continue to be one of the cornerstones of maritime safety and environmental protection in Washington State.

Prevention Section

The Exceptional Compliance Program (ECOPRO) and the Voluntary Best Achievable Protection (VBAP) Program

Each year, tank vessel operators are invited to participate in two Department of Ecology programs to protect Washington's irreplaceable natural resources from the damage caused by an oil spill.

In 2004, five companies renewed their commitment to the Voluntary Best Achievable Protection (VBAP) program: AHL Shipping Company, Keystone Shipping, Scorpio Ship Management, Solar Japan and West Coast Fuel Transport. At the same time, three companies joined Washington's Exceptional Compliance Program (ECOPRO): Tanker Pacific Management, Island Tug and Barge and Marine Transport Corporation. Both programs are voluntary.

Companies renew their commitment by reviewing their prevention plans and making sure, at a minimum that any policies and procedures that have been updated continue to reflect the VBAP standards. Some companies take the opportunity to re-submit their plans as well to the ECOPRO, demonstrating that their company has made an even bigger commitment to operational excellence. After reviewing these plans and boarding the vessels to confirm they are operating to the highest standards, Ecology recognizes these companies as leaders in environmental safety management by granting them membership in ECOPRO.

Ecology takes great pleasure in celebrating when a company achieves an ECOPRO membership. In a special ceremony, Ecology presents a plaque and award recognizing each company's commitment to operating safely within Washington's waters. The influence of the voluntary program is apparent in the positive feedback Ecology has received from participating companies.

"Our crews have learned a lot from Washington's ECOPRO program and are using what they have learned in similarly sensitive waters around the world. Implementing the ECOPRO standards and pursuing excellence in our daily activities has made us a better organization overall."
Emmanuel Vordonis, Executive Director of Thenamaris Ships Management Inc. - Athens, Greece

"Operating under Washington's initiatives for tank vessels has helped our company, as a whole, to perform better and operate our tank vessels more safely."
United States tank barge owner/operator

The ECOPRO Program has the following participants:

Washington Exceptional Compliance Program (ECOPRO) Full Members

SeaRiver Maritime Inc.	Houston, Texas USA
Alaska Tanker Company, LLC	Beaverton, Oregon USA
M.T.M. Ship Management Pte. Ltd.	Singapore
Thenamaris Ships Management Inc.	Athens, Greece

ECOPRO Associate Members (Full Membership pending vessel inspections.)

Island Tug and Barge Ltd., Vancouver, B.C., Canada

Marine Transport Corp. (ATB Division) , Long Beach, California

Tanker Pacific Management Pte. Ltd., Singapore

ECOPRO Award

'04 Vessel Entries & Transits (VEAT)

During calendar year 2004, there were **6,865** large commercial vessel entries (300 gross tons or larger and tank ships of any tonnage) into Washington State waters. Of these entries, **5,149** (75 percent of the total) were bound for Washington and Canadian ports, **1,669** entries into the Columbia River bound for Washington and Oregon ports (24.3 percent of the total), and **47** entries into Grays Harbor (0.7 percent of the total). No tank vessels entered Grays Harbor.

In 2004, cargo and passenger transits entering Puget Sound via the Strait of Juan de Fuca dropped 14

percent from the previous year (2003). This can be attributed to the fact that during the last two years an increasing number of foreign flag ships call first at Vancouver, B.C. via the Strait of Juan de Fuca, and then enter Washington waters via the Haro Strait, which reduces the number of entries bound directly for Washington ports via the Strait of Juan de Fuca.

There was a notable increase from calendar year 2003 in vessel entries into Grays Harbor. In 2004 there were **47** entries, up from **31** entries in 2003, which is a 52 percent increase over the previous year. This change is attributed to a new agricultural bulk loading facility at the Port of Grays Harbor Terminal 2.

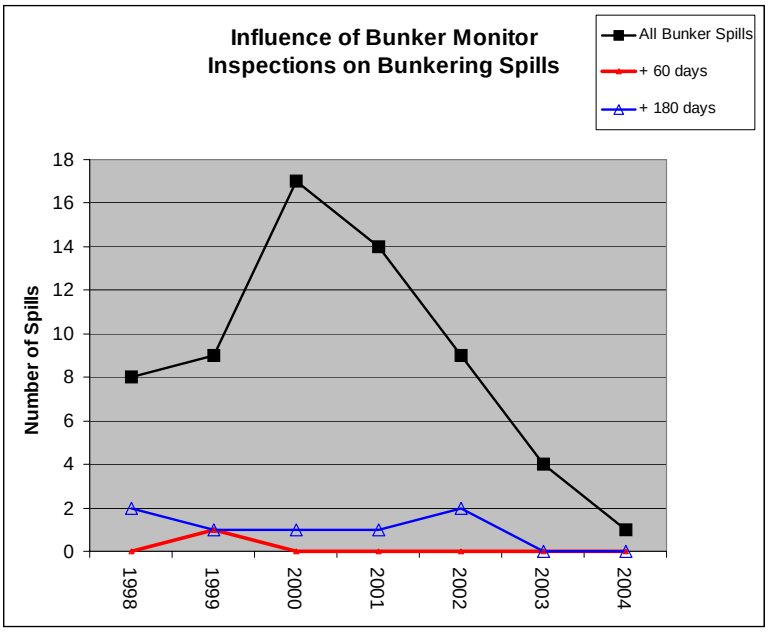
Another significant change was oil barge traffic on the Columbia River system, dropping from **1,530** transits in 2003 to **822** transits in 2004, which is an 86 percent decrease in oil barge traffic during 2004. This change is due in large part to a sharp drop in up-river oil barge transits due to restored regional pipeline capacity.

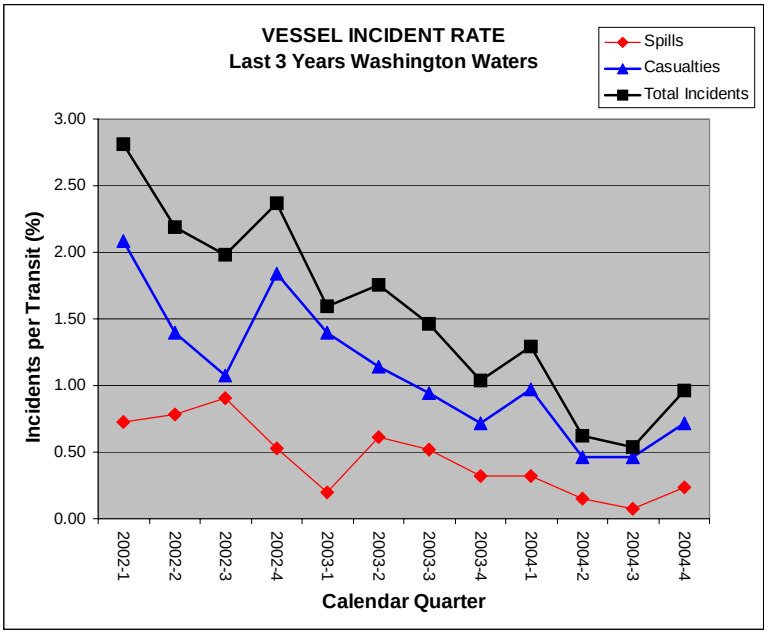
Vessel Incident Rate/Bunker Monitoring

The overall vessel incident rate (see chart on right), computed as a percent of the number of entering vessels, had been on a downward trend for the two previous years but showed signs of leveling off in 2004. It's worth noting the low number of spills from regulated vessels we continue to experience in Washington waters; there were just 24 spills during this period, compared with 40 in 2001 and 46 in 2002.

Vessel inspectors have focused on increasing their presence aboard vessels, and specifically on bunker monitoring inspections, raising the number of inspections from about 1,000 per year in 2000-2001 to 1,533 in 2004. Concurrent with the higher inspection rate, bunker monitors have accounted for more than 40 percent of the compliance inspections since 2002.

The effect of this emphasis can be seen in the bunkering chart below, which compares bunker spills by vessels that received a bunker monitor inspection to all bunker spills. Vessels inspected have had no spills within 60 days of the inspection for the past five years. This clearly is paying off: The total of all spills during bunkering operations has been decreasing since 2000. Only one spill was reported to have occurred during bunkering operations in 2004.





Preparedness Section

The ability of industry to respond quickly and effectively to spills requires continuous self-improvement and close coordination with agencies and local communities. Investing in preparedness reduces spill impacts to public health and the environment, minimizes the costs for spill responses, and increases recovery of spilled product. The core elements of preparedness include:

- The Northwest Area Contingency Plan and industry oil spill response plans;
- Ecology's DRILLTRAC program, an internal training and competency program for the Incident Command System;

  Drills and training exercises;
- Geographic response plans;
- Response contractor application and approval; and
- Vessel financial responsibility.

Oil Spill Response Plans

The Preparedness Section participates in development and maintenance of the Northwest Area Contingency Plan and the various work groups that help maintain the plan. Preparedness staff also review and approve industry contingency plans for tank vessels and barges, non-tank vessels, oil terminals including refineries, pipelines, and other facilities that transfer oil near waterways. These plans describe the equipment, resources, and strategies required to quickly respond in the event of a spill.

There are 41 oil spill contingency plans. In 2004, eight of those were reviewed and approved.

The two regulations governing the content and implementation of contingency plans are currently open for amendment. Information can be found on our website: http://www.ecy.wa.gov/programs/spills/preparedness/preparednesstable.htm#ContingencyPlans

Zero Spills to Water – New Goal for Washington

The 2004 Washington State Legislature set a goal of zero spills to Washington waters and directed Ecology to develop a strategy to safeguard oil transfers. Rules will be developed by June 2006, requiring facilities conducting oil transfers to vessels to have access to response equipment, training on its use, pre-deploying the boom prior to the transfer when it is safe and effective, and to employ other alternative measures where pre-booming is not feasible. Near the end of 2004, an Advisory Committee was formed to help with the rule process. A study of the experiences in other states with oil transfer monitoring and oversight has been commissioned to inform the committee.

Currently, data on transfers, regulatory requirements and industry practices is being gathered from many parts of the state to determine if regulatory or funding gaps exist. An interim report to the Washington Legislature was delivered in December, and a final report will be presented in September 2005. The final report will contain recommendations for regulatory and funding enhancements.

Summary of drill activity in Washington State for 2004

Drills and exercises test the viability of oil spill response plans and the ability of operators to carry them out. Announced and unannounced drills are conducted, ranging in size and complexity. The Preparedness Section participates in and evaluates all deployment and tabletop exercises. In 2004:

- Drill credit and evaluations were written for 26 tabletop drills. Nine of these were worst-case exercises.
- Evaluations were written for 48 deployment drills. Two companies received drill credit for their responses to small spills. Plan holders tested and received drill credit for deploying 17 geographic response plan strategies (pre-identified environmentally sensitive areas).
- Ecology initiated 248 unannounced vessel notification drills on board vessels during inspections.
- Two on-water SMART protocol dispersant monitoring drills were held (joint efforts of NOAA, Coast Guard, Clean Sound, Polaris and Ecology).

Boom deployment training on the Spokane River.

Response Section

Training

In April, the Yellowstone Pipe Line Company hosted three days of fast water spill response training for responders from Washington, Idaho and Montana. The training brought together 40 people from three pipeline companies (Yellowstone, Olympic and ChevronTexaco), four primary response contractors (Marine Spill Response Corporation, National Response Corporation Environmental Services, Cowlitz Clean Sweep and Tidewater Environmental Services), and one agency (Ecology).

Each of the three training days featured a deployment drill. The boom deployment operations were designed to push the limits of equipment and personnel in a controlled setting. Participants learned the pitfalls of everything from boom failure resulting from excessive current speed to parting lines from excessive force and chaffing. Safety was emphasized at all times.

Above all, the training resulted in the understanding of the magnitude of the job in the event of a real spill, an appreciation for the power of a river, and the equally impressive power of teamwork.

Response Contractor Approval

Response contractors whose resources are listed in oil spill response plans must meet the state's application and approval requirements. Eleven private and non-profit companies have grown and matured since the oil spill response requirements came into effect in the early 1990's. Today these companies, along with industry-owned resources, form the backbone of Washington's response capability.

Lessons Learned

Ecology has a history of being a very open agency, and puts forth considerable effort at being accessible and responsive to public input. Considering that every response action mounted by the agency faces unique and complex challenges, being open and accepting input can be daunting. It takes considerable courage to expose your weaknesses, blemishes and vulnerabilities and to open itself up to public criticism. The Spills Program goes out of its way to do just that through its *Lessons Learned* policies.

There is no shortage of people and organizations willing to offer advice to the program. But the feedback returned brings indisputable value – the payoff for what can be a temporarily uncomfortable critical experience is how we improve spill response, citizen involvement, and address their concerns. The spills program operates in a dynamic setting and recognizes the need to operate our programs and staff to become more nimble at change to achieve full public trust.

The Spills Program has always had a tradition of looking inward and learning and improving based on debriefs and critiques. In 2004 we formalized our processes around lessons learned and implemented new policies for major events. These include:

- Internal debriefings are held for all significant events and even for small events where there are substantive lessons to be learned.
- We hold external debriefings, inviting our response partners, other agencies, response contractors, local organizations, and other stakeholders to participate.
- On major spills, such as the Foss Barge P-248 Spill, The Dalles Dam Spill and The Dalco Passage Spill, we hire an independent contractor to produce an independent Lessons Learned report.

These lessons and recommendations are summarized and prioritized for implementation. Program staff lead and track their implementation. They are worked into the program policies and procedures, and practiced in the drill program.

Some recommendations are slam dunks; they can be easily implemented through policy, training, and modification of existing systems. Others take some time to develop and are coordinated

(Cont. on next page)

Fishtrap Creek restoration project.

(Lessons Learned continued)

with changes into the Spills Program, such as when training staff, or purchasing new technologies. Other changes, like many recommended by the Oil Spill Early Action Task Force, require legislative action or funding.

Here are some examples of recent recommendations implemented into the Spills Program as a result of our lessons learned process:

- We have updated our notification and Go/No-Go policies and procedures.
- We have an agreement with the King County Sheriff's Forward-Looking Infra-Red resources and privately contracted infra-red imaging resources.
- We have provided volunteer beach watcher and clean-up training to community based organizations.
- Ecology has expanded its contact list for contracted air support and on-water radar equipped assets.
- We have provided beach clean-up training to Ecology employees to create a surge capacity to rapidly respond to catastrophic impacts.
- Ecology has enhanced its Incident Management Team with additional training, including 50 Ecology staff trained to perform shoreline cleanup and assessment.
- We have expanded our drill program to increase the number of unannounced drills.

Check the Ecology Spills Program website at http://www.ecy.wa.gov/programs/spills/spills.html for more information on lessons learned. At this site, you will find the individual *Lessons Learned* reports and reports from the Oil Spill Early Action Task Force.

Work Continues with the Columbia, Snake River Spill Response Initiative

Development of the Columbia, Snake River Spill Response Initiative (CSRSRI) has proceeded in recent meetings between Ecology's Spill Response and Preparedness staff and U. S. Army Corps of Engineers environmental coordinators. The CSRSRI was developed in recognition that most dams are geographically remote from contractor assistance and pose a spill threat to state waters. As part of the CSRSRI, Ecology staff is assisting the Corps environmental coordinators in developing a specific spill plan for each dam on the Columbia and Snake rivers. Each plan identifies significant response strategies below the dams that can be deployed by the Corps in case of a spill. These strategies would be deployed by the Corps in advance of a spill contractor response. The plans not only identify deployment strategies but describe the types and kinds of equipment needed to conduct deployments (booms, boats, anchors, etc.) and the associated training needs for these operations.

The CSRSRI planning phase for all Corps projects on the Snake and Columbia rivers has been completed with the exception of the Chief Joseph Project, which will be addressed by summer. It is now up to the Corps to purchase the identified equipment, receive training then practice deployments on the rivers. The Corps is working toward completing the CSRSRI plans by this fall. Ecology will then focus on public utility dams and Bureau of Reclamation dams.

Ecology staff also conducted joint Spill Prevention, Containment, and Countermeasure (SPCC) plan inspections with EPA for the Columbia River dams in the summer of 2004. Inspections focused on verifying the following:

- The capacity of secondary containment systems;
- The adequacy of oil transfer and storage equipment inspections and maintenance practices, including pipelines, valves, tanks, and transformers;
- Oil transfer procedures;
- Records of oil usage and consumption; and
- The effectiveness of the oily water separators.

Corps dam inspection.

The inspections revealed that the Corps had made significant improvements to prevent oil spills at the dams. However, there are still measures that can be implemented to further reduce the potential for dam oil spills. The Spill staff will continue to work with the Corps on those issues.

The Methamphetamine Story in 2004

Ecology continued to be the only public agency doing wide-scale cleanup of meth labs in 2004, marking a 15-year run that has seen the handling of 13,000 labs or dump sites. This activity peaked in 2001 and has shown a slow decline of about 10 percent per year in the three years since. The decline in small and large labs corresponds with law enforcement intelligence that U.S.-based meth super labs are being relocated. As it becomes more difficult to make locally, meth is becoming an imported product. Indications are that drug trafficking organizations in Mexico are producing the meth and smuggling it to U.S. destinations rather than supplying raw materials to large labs here.

Citing information from the Department of Social and Health Services, the Washington State Patrol reports an increase in the number of individuals seeking meth addiction help from publicly funded treatment programs. Whether this means that there are more addicts or that more of them want help, it's clear that a large problem remains.

In 2004, criminals became more innovative in cooking meth in the privacy of their homes, trailers and motel rooms. Faced with tightening supplies of liquid ammonia, meth makers have begun generating their own. They do this by combining dry fertilizer with caustic soda inside a 5-gallon propane tank, then adding a touch of water to produce anhydrous ammonia vapors. These vapors are then chilled to dry-ice temperatures to condense and collect liquid ammonia. This has introduced a new task for Ecology clean up crews, who have to safely depressurize the tanks, manually cut them open with power saws and chip out the corrosive salt-cake residue.

Staying the course to suppress this problem will pose a challenge. Meth remains the drug most often submitted to the state crime labs for analysis. In spite of this, federal grant assistance to a variety of Washington law enforcement, treatment and prevention programs and to Ecology has declined in the last three years. It is expected that there will be even less support for the coming fiscal biennium.

Despite limited funding, Ecology will continue to clean up labs and dump sites for the foreseeable future while continuing to seek ways to reduce the cost of the meth clean up process.

Natural Resource Damage Assessment

Protecting the environment is important but when accidents happen restoration is critical to preserving our natural resources. Even small oil spills can cause significant damage to sensitive areas that may be crucial to the survival of threatened or endangered species.

That's where the Resource Damage Assessment (RDA) and Coastal Protection Fund steering committees come in. Members of these committees represent several state agencies: State Parks and Recreation, Department of Fish and Wildlife, Department of Natural Resources, Office of Archaeology and Historic Preservation and Department of Ecology.

After an oil spill, the RDA committee evaluates damage to the environment, and Ecology uses that information to determine a monetary damage assessment against the party responsible for the spill. The assessment can be paid in cash, or a proposal to restore the environment can be submitted to the committee for consideration. Cash payments go into regional subaccounts of the Coastal Protection Fund.

In the past 14 years, damage claims have been assessed on more than 360 oil spills, providing funding for 64 restoration projects related to those incidents.

One example is a shoreline area purchased with matching funds from National Oceanic and Atmospheric Administration in 2002. Nick's Lagoon in Seabeck Bay, was created. Named after Nick Holm, a 14-year-old at the time, Nick's efforts to save salmon habitat in the Northwest, and Jerry Zumdieck, founder of the Salmon Team, joined forces to educate the public on salmon and water related issues linked to their survival.

(Continued on next page)

Nick Holm at Nick's Lagoon in Seabeck Bay.

Natural Resource Damage Assessment - cont.

Restoration Projects are funded in three ways:

Projects are paid for by the responsible party. http://www.ecy.wa.gov/programs/spills/preparedness/restorationprojects/direct.htm

- Projects are paid for by money which has been deposited by the responsible party into sub-accounts of the coastal protection account. The four sub-accounts are as follows:
  - o South Puget Sound/Hood Canal
  - o North Puget Sound/Strait of Juan de Fuca
  - o Columbia River/Outer Coast
  - o Special Projects
- Projects are also funded from an account in which spill penalties are deposited. The money from this account is used to supplement the sub-accounts listed above.

For more information on the Coastal Protection Funded projects, go to the following website: http://www.ecy.wa.gov/programs/spills/preparedness/restorationprojects/cptrestorationprojects.html

Shoreline cleanup project: Crew from the USS Camden dismantling old dock near Bangor, Washington.

Spill Scene

Spill Scene is published by the *Washington State Department of Ecology* to provide information on oil and hazardous substance spill prevention, preparedness and response. We welcome your comments and questions. Call (360) 407-7211 or write:

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